Nuclear Material Stabilization

Expectation:

Safely stabilize special nuclear materials at the Plutonium Finishing Plant and then deactivate the facility to reduce risk to workers and the environment while decreasing cost to taxpayers.

We'll start stabilizing plutonium polycubes, like the one shown here, later this year when lab testing confirms the use of muffle furnaces for stabilization.

Status Update:

- **Thermal stabilization of plutonium-bearing materials continues at an increasing rate, as does our use of the prototype vertical calciner to stabilize plutonium solutions. We're on track to quadruple our rate of stabilization.**

What's Next:

- **We plan to accelerate stabilization of plutonium polycubes by more than two years, beginning later this fiscal year – well ahead of the January 2003 target start date.**

Nuclear Material Stabilization

What's Next: (continued)

- To further increase the thermal stabilization rate, we'll start up three new furnaces in February, four months ahead of schedule.
- We're preparing to restart cementation of residues in April.
- We plan to begin magnesium hydroxide precipitation processing of plutonium-bearing solutions in July.

This cementation glovebox (top photo) and mockup of a magnesium hydroxide precipitation glovebox (bottom) represent processes that will soon increase the amount of nuclear materials being stabilized at the Plutonium Finishing Plant.